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(22)Date of filing : 01.10.1999 (72)Inventor : TAKAKURA MUNENARI

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(54) PORTABLE COMMUNICATION EQUIPMENT HAVING CREDIT CARD  
FUNCTION

(57)Abstract:

PROBLEM TO BE SOLVED: To provide credit authentication settling method and device which are performed by portable communication equipment such as a portable telephone and a PHS.

SOLUTION: The portable communication equipment is made a device provided with use that is the same as that of a credit card by adding a credit card function other than a communication function. The device is connected to such as a credit authentication settlement terminal machine including a dedicated receiving medium device, and credit

information is analyzed and accumulated and then transmitted to the authentication settlement terminal machine, etc., to perform settlement. In a medium that does not have the authentication settlement terminal machine, etc., the communication function of the portable communication equipment is automatically operated by a transmission function instruction of the dedicated receiving medium device to be connected to a center capable of performing credit authentication settlement, etc., and processing is carried out.

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3.In the drawings, any words are not translated.

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## CLAIMS

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[Claim(s)]

[Claim 1] Equipment (1) and mode of processing which were made to read credit information into bodies of a pocket mold communication device, such as a cellular phone and PHS, and added the same function as a credit card apart from communication facility.

[Claim 2] The connection type and external connection equipment (2) in the direct continuation which used the external connection terminal of a pocket mold communication device (1) etc., or the indirect connection by the activity of an external connection equipment (2).

[Claim 3] Exclusive receiving medium equipment (3) and mode of processing which receive data, such as credit information from a pocket mold communication device (1), and send data to a credit authentication terminal etc. after carrying out an analysis total.

[Claim 4] The exclusive transmitting medium equipment (3) and the transmitting method which carry out automatic activation of the communication facility of equipment (1) according to claim 1 or other communication devices, and transmit information data according to the content of information analysis of exclusive receiving medium equipment (3).

[Claim 5] The method and approach of performing processing of a credit service information-related display etc. in renewal of the credit information inside a pocket mold communication device (1), and a list.

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## DETAILED DESCRIPTION

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### [Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the credit authentication settlement-of-accounts approach and equipment employment technique which used the pocket mold communication device.

[0002]

[Description of the Prior Art] The credit authentication settlement-of-accounts approach and equipment employment technique which used the conventional pocket mold communication device are the credit authentication settlement-of-accounts approach and equipment employment technique which compounded the communications processing which surely used the communication facility of a pocket mold communication device, and authentication settlement-of-accounts processing.

[0003]

[Problem(s) to be Solved by the Invention] By the Prior-art approach, in order for the check of the content information of credit authentication settlement of accounts etc. to be able to perform neither interruption of the credit authentication settlement-of-accounts processing by the sudden line disconnection under communication link, nor generating of equipment activity disabling communication link outside the circle or to carry out the authentication settlement of accounts of the credit according to the communication link condition of a pocket mold communication device, there are problems, such as sensing an uneasy element.

[0004] Moreover, in a credit card, there is a problem of the increment in the amount of operation of the cost high in generating of a counterfeit card or the distribution card activity at the time of renewal of a credit card and the card distribution impossible by the customer absence, a redistribution processing activity, etc.

[0005] While considering that this invention can shift without not being different from handling of the conventional credit card to a customer, and if possible changing the system configuration of a credit firm, and employment and aiming at reduction of the amount of operation in a cost list, it aims at the ability to perform credit

authentication settlement of accounts.

[0006]

[Means for Solving the Problem] in order to attain the above-mentioned object , it enable it to deal with it as a usual credit card by add the credit card function which gave credit information apart from communication facility to a pocket mold communication device , connect with it directly than an external connection terminal , or send credit information to exclusive receiving medium equipment , and send delivery and the information data which carried out the analysis total to a credit authentication settlement terminal by connection with external connection equipments , such as an exclusive cable .

[0007] Moreover, in various automatic vending machines or an uninhabited settlement-of-accounts machine, what communication media attach separately is performed like the above-mentioned credit authentication settlement-of-accounts processing, and when there is no communication facility, only the location which can communicate certainly enables credit authentication settlement of accounts using the communication facility of a pocket mold communication device.

[0008] The pocket mold communication device internal information update process at the time of renewal of a credit card is performed by carrying out the connection activity of communication facility or the external connection terminal, and the information display of the content of credit authentication settlement of accounts is performed on real time during connection.

[0009] Presenting of the service information of a credit firm etc. is enabled using communication facility.

[0010]

[Embodiment of the Invention] In drawing 1 , in paying by the credit member's store, it connects more directly than the external connection terminal of a pocket mold communication device (1), or connects with exclusive receiving medium equipment (3) indirectly using an external connection equipment (2), and credit card information (ID number etc.) is transmitted.

[0011] By performing analysis and total processing and transmitting credit information to a credit authentication settlement terminal (4), exclusive receiving medium equipment (3) judges credit settlement of accounts in the authentication settlement-of-accounts pin center,large, and answers a credit authentication settlement terminal (4) in the result.

[0012] A credit authentication settlement terminal (4) transmits the content information of credit authentication settlement of accounts to exclusive receiving

medium equipment (3), and expresses the content information of credit authentication settlement of accounts to the display capabilities of a pocket mold communication device (1) as real time in an external connection equipment (2) or direct continuation.

[0013]

[Effect of the Invention] Since this invention can utilize easily conventional communication facility and a conventional credit card authentication settlement method, it can do improvement costs etc. cheaply and early employment is possible for it. Moreover, depending on a spread degree, the technical progress between communication link industry and the credit distribution industry is promoted, it contributes to employment method engineering, such as various automatic vending machines and an uninhabited settlement-of-accounts machine, by the nest of exclusive receiving medium equipment, and the effectiveness which brings forward establishment of electronic banking techniques, such as firm banking and cybermoney, by improvement of an employment gestalt, such as considering the credit card function of a pocket communication device as a share card function in the future, is brought about.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] Processing block diagrams, such as a credit member's store

[Drawing 2] The processing block diagram of the uninhabited settlement-of-accounts machine equipment by the cable

[Drawing 3] The processing block diagram of the uninhabited settlement-of-accounts machine equipment by wireless

[Drawing 4] Each example of equipment connection by the appearance image

[Drawing 5] A credit card update process and a distribution method

[Description of Notations]

Pocket mold communication device

External connection equipment

Exclusive receiving medium equipment

Various credit authentication settlement terminals

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NN22

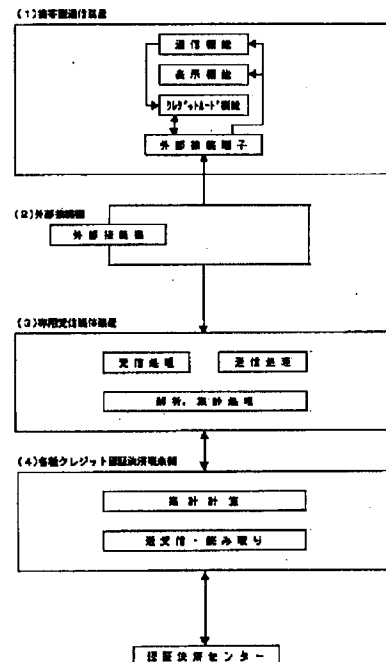
(54) 【発明の名称】 クレジットカード機能付き携帯型通信装置

(57) 【要約】

【課題】 携帯電話やPHS等の携帯型通信装置で行なうクレジット認証決済方法及び装置運用。

【解決手段】 携帯型通信装置に通信機能とは別にクレジットカード機能を付加し、クレジットカードと同一な用途を持つ装置にする。この装置を専用受信媒体装置を組込んだクレジット認証決済端末機等と接続し、クレジット情報を解析集計して認証決済端末機等に伝達を行ない精算を実行する。認証決済端末機等が無い媒体に対しては、専用受信媒体装置の送信機能命令により、携帯型通信装置の通信機能を自動操作し、クレジット認証決済を行なえるセンター等に接続し処理を実行する。

クレジット加盟店等の処理構成図





## 【特許請求の範囲】

【請求項1】携帯電話やPHS等の携帯型通信装置本体にクレジット情報を読込ませ、通信機能とは別にクレジットカードと同じ機能を付加した装置（1）及び処理方式。

【請求項2】携帯型通信装置（1）の外部接続端子等を使用した直接接続、又は外部接続機具（2）の使用による間接接続における接続方式及び外部接続機具（2）。

【請求項3】携帯型通信装置（1）からのクレジット情報等のデータを受信し、解析集計したのち、クレジット認証端末機等にデータを送る専用受信媒体装置（3）及び処理方式。

【請求項4】専用受信媒体装置（3）の情報解析内容により、請求項1記載の装置（1）又は他の通信装置の通信機能を自動実行し、情報データを送信する専用送信媒体装置（3）及び送信方式。

【請求項5】携帯型通信装置（1）内部のクレジット情報の更新、並びにクレジットサービス情報関係の表示等の処理を実行する方式及び方法。

## 【発明の詳細な説明】

## 【0001】

【発明の属する技術分野】本発明は、携帯型通信装置を使用したクレジット認証決済方法及び装置運用技術に関する。

## 【0002】

【従来の技術】従来の携帯型通信装置を使用したクレジット認証決済方法及び装置運用技術は、携帯型通信装置の通信機能を必ず利用した通信処理と認証決済処理を複合したクレジット認証決済方法及び装置運用技術である。

## 【0003】

【発明が解決しようとする課題】従来の技術方法では、携帯型通信装置の通信状態により、通信中における突然の回線切断によるクレジット認証決済処理の中断や通信圏外における装置使用不能状態の発生など、またクレジット認証決済内容情報等の確認ができなかったり、クレジットを認証決済するには、不安要素を感じるなどの問題がある。

【0004】又、クレジットカードにおいては、偽造カードの発生やクレジットカード更新時の配布カード作業におけるコスト高、また顧客不在によるカード配布不能や再配布処理作業等の業務量増加の問題がある。

【0005】本発明は、顧客に対しては従来のクレジットカードの取扱いと変わらず、またクレジット会社のシステム形態及び運用を、なるべく変更せずに移行できるように考慮し、コスト並びに業務量の減少を図ると共に、クレジット認証決済を実行できることを目的とする。

## 【0006】

【課題を解決するための手段】上記目的を達成するため

には、携帯型通信装置に通信機能とは別にクレジット情報を持たせたクレジットカード機能を付加し、外部接続端子より直接的に接続を行なうか、専用ケーブル等の外部接続機具による接続によって、専用受信媒体装置にクレジット情報を送り、解析集計した情報データをクレジット認証決済端末機に送ることで、通常のクレジットカードとして取り扱えるようにする。

【0007】又、各種自動販売機や無人精算機においては、別途通信媒体がついているものは、上記のクレジット認証決済処理と同様に行ない、通信機能が無い場合は確実に通信可能な場所のみ、携帯型通信装置の通信機能を使用してクレジット認証決済を可能とする。

【0008】クレジットカード更新時の携帯型通信装置内部情報更新処理は、通信機能又は外部接続端子を接続使用して行ない、クレジット認証決済内容の情報表示は、接続中にリアルタイムで行なう。

【0009】クレジット会社のサービス情報等の表示は、通信機能を使用して可能とする。

## 【0010】

【発明の実施の形態】図1において、クレジット加盟店で精算する場合には携帯型通信装置（1）の外部接続端子より直接的に接続するか、間接的に外部接続機具（2）を使用して専用受信媒体装置（3）に接続し、クレジットカード情報（ID番号等）を送信する。

【0011】専用受信媒体装置（3）は、解析、集計処理を行いクレジット認証決済端末機（4）にクレジット情報を送信することにより、認証決済センターにてクレジット決済の審判を行ない、その結果をクレジット認証決済端末機（4）に返信する。

【0012】クレジット認証決済端末機（4）は、クレジット認証決済内容情報を専用受信媒体装置（3）へ送信し、外部接続機具（2）または、直接接続にて携帯型通信装置（1）の表示機能へ、クレジット認証決済内容情報をリアルタイムにて表示する。

## 【0013】

【発明の効果】本発明は、従来の通信機能やクレジットカード認証決済方式を容易に活用できるため、改善費用等が安価にでき早期運用が可能である。又、普及度合によっては通信産業及びクレジット流通産業間の技術進歩を促進させるものであり、専用受信媒体装置の組込みにより各種自動販売機や無人精算機等の運用方法技術に貢献し、将来、携帯通信装置のクレジットカード機能を共有カード機能とするなどの運用形態の改善によりファームバンキングや電子マネー等の電子決済技術の確立を早める効果をもたらす。

## 【図面の簡単な説明】

【図1】クレジット加盟店等の処理構成図

【図2】有線による無人精算機装置の処理構成図

【図3】無線による無人精算機装置の処理構成図

【図4】外観イメージによる各装置接続例

【図5】クレジットカード更新処理及び配布方式

【符号の説明】

携帯型通信装置

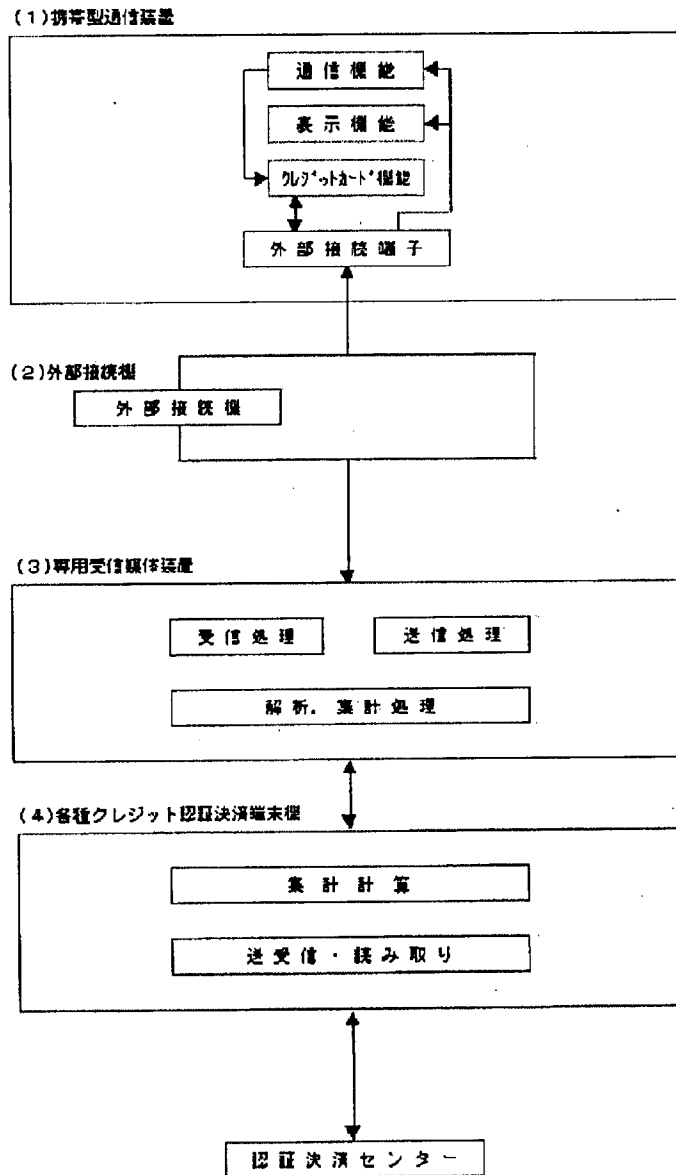
\* 外部接続機具

専用受信媒体装置

\* 各種クレジット認証決済端末機

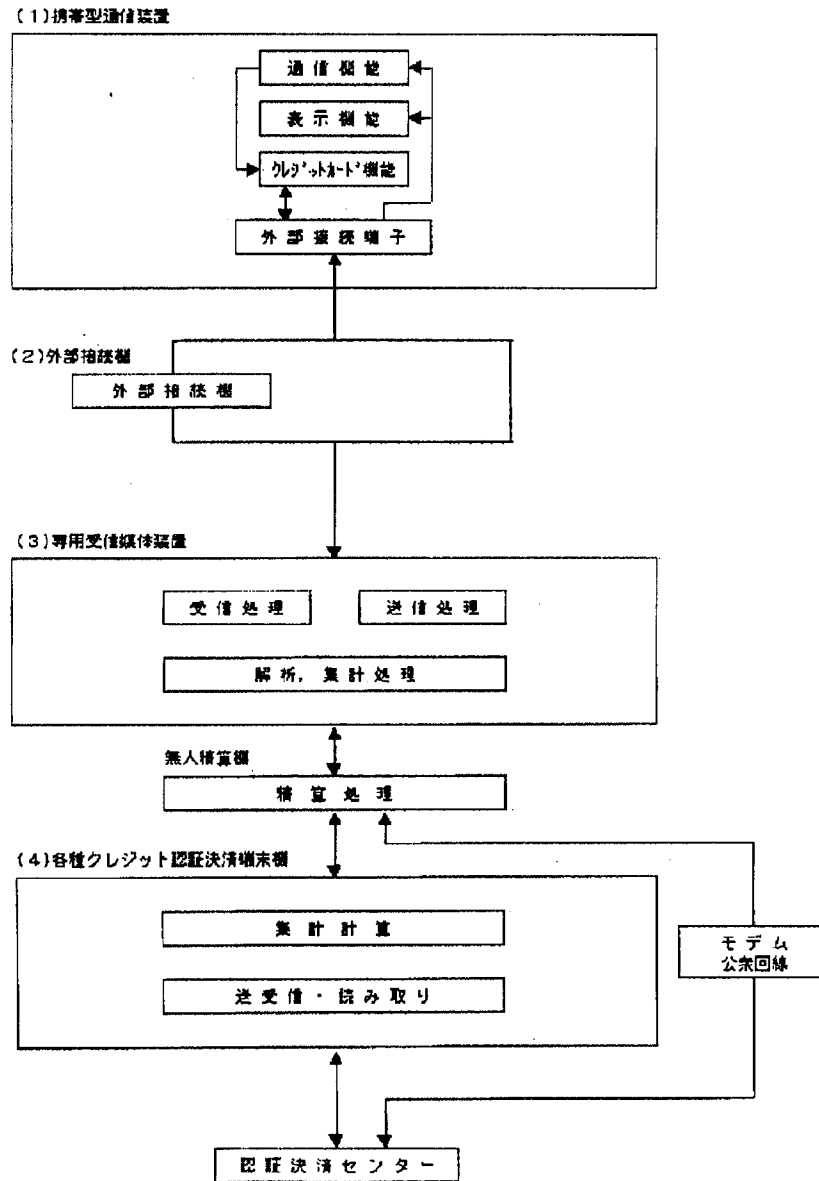
【図1】

## クレジット加盟店等の処理構成図



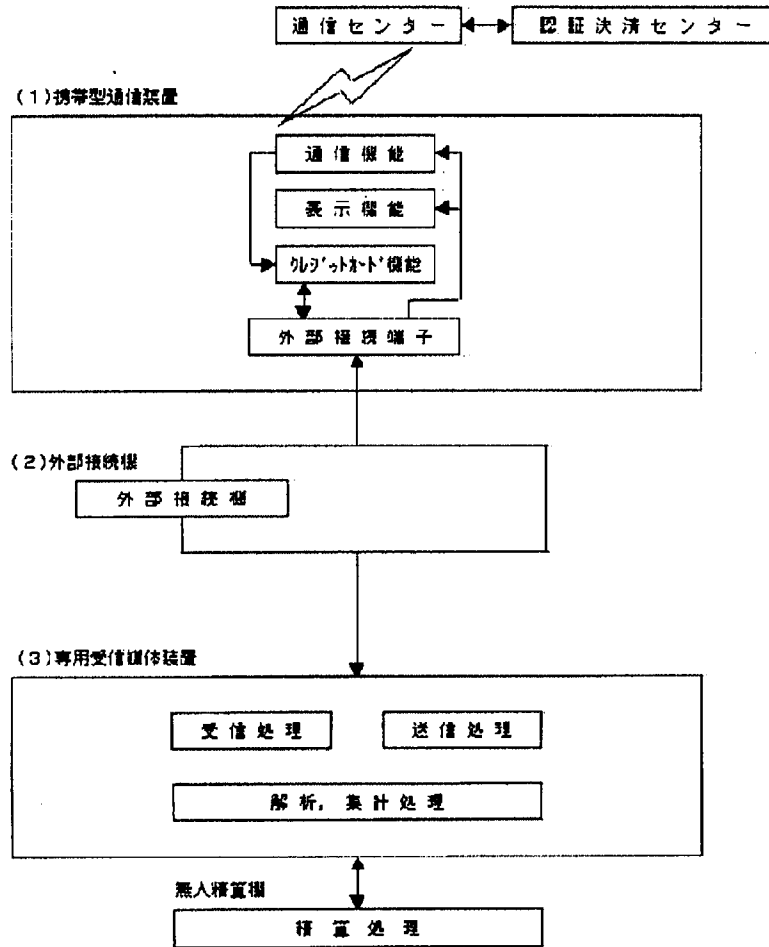
【図2】

## 有線による無人精算機装置の処理構成図

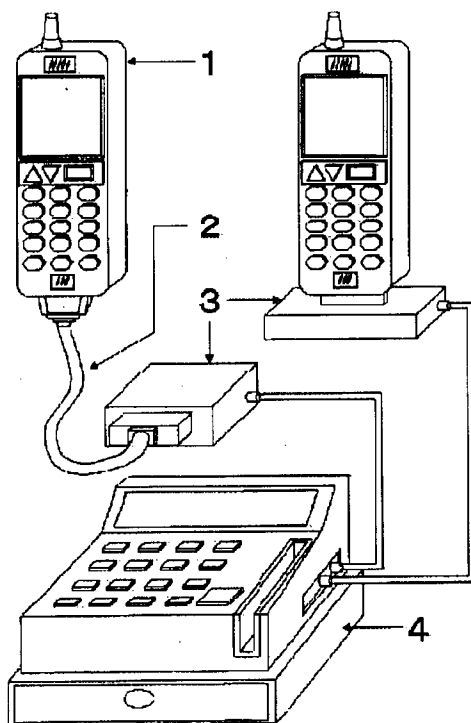


【図3】

## 無線による無人精算機装置の処理構成図

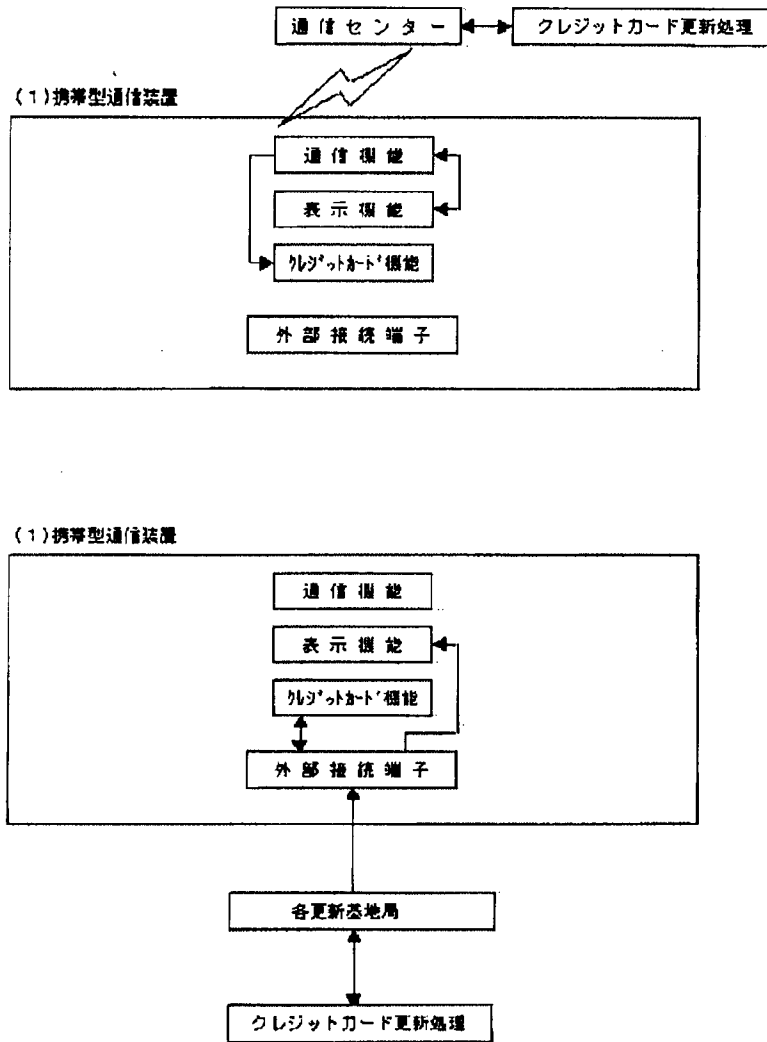


【図4】



【図5】

## クレジットカード更新処理及び配布方式



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